

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-009066**Date Inspected:** 06-Sep-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Hong Fei, Sun Bo**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 9 – PMT

This QA inspector monitored OBG Production Monitoring Test (PMT) #3006 for deck panels DP3006A-001, DP3007A-001, and DP3019-001 at Gantry #2. Prior to the start of the PMT, the magnetic particle test (MT) of the tack welds was noted on the test panel as having been performed by ZPMC MT Inspector Jin Jianting. The visual inspection of tack welds and root gap was performed by ABF Representative Cao Haizhou (ABF), ZPMC CWI Sun Bo (QC), and this QA inspector. The start time for welding was approximately 0011 hours on Monday, 9/7/09 and the finish time was approximately 0050 hours. This QA inspector randomly verified and documented the welding amperage, voltage, and travel speed during the gas metal arc welding (GMAW) and submerged arc welding (SAW) processes, welds 1 thru 6 at the completion of both the GMAW root pass and SAW cover pass. The welding variables recorded by QC appeared to comply with WPS-B-T-2342-U1-(U-rib)-4. The welds were visually inspected by ABF, QC and this QA inspector. QC and ABF informed this QA inspector that all six welds were acceptable and this QA Inspector concurred. This QA inspector randomly witnessed ZPMC ultrasonic testing (UT) inspector, identified as Ma Jilong, perform UT on each of the 500 mm test welds for depth of penetration and conformance. This QA inspector selected fifteen designated locations for macroetch sampling per contract requirements. Each macroetch location was stamped by ZPMC personnel with the number 3006, the number 7, and an individual macroetch identifying number for each macroetch. After removal from each of the weld test specimens, polishing, and acid etching of the selected end, the macroetches were evaluated with a 7X

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optical magnifier and accepted by QC, ABF, and this QA inspector.

All fifteen sample macros appeared to meet requirements and were noted to appear acceptable. See Caltrans U-ribs PMT Inspection Sheet, ZPMC production monitoring test plate inspection report, and Caltrans Macro Etch Log - all dated 9/7/2008 for additional information.

OBG Trial Assembly Area

This QA Inspector, George Goulet, proceeded to the OBG trial assembly area in response to the request of day shift Caltrans OSM Quality Assurance personnel for MT inspection of the following:

This QA Inspector, George Goulet, performed VT and MT of approximately 15% of the repaired area at Y axis 2250, previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector, George Goulet, generated an MT report for this date. The member is identified as segment 3AW, panel point 21, upper floor beam, east side. The weld designation reviewed was web to upper flange.

Bay 11

This QA inspector randomly observed the following work in progress in Bay 11:

FCAW welding of weld joint ESTL3-4B/K-83A located on east tower, lift 3, skins C/D outside corner. Welder was identified as 070212. ZPMC QC was identified as CWI Li Hong Fei (QC2). The welding variables recorded by QC2 appeared to comply with WPS-345-SMAW-4G(4F)-repair which was listed on an unnumbered WRR presented to this QA inspector by QC2.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

Except as noted above, no relevant conversations on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 134-8257-0045, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet, George	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer
